

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor: PEUKER, MARC
Application No.: 10/598613 Confirmation No.: 7832
Filed: March 10, 2005 Group Art Unit 3728
Title: CAPSULE FOR STORAGE, MIXING AND DISPENSING MATERIALS

BRIEF ON APPEAL

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CERTIFICATE OF MAILING OR TRANSMISSION [37 CFR § 1.8(a)]	
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March 12, 2010	/Tracey L. Riley/
Date	Signed by: Tracey L. Riley

Dear Sir:

This is in appeal to the Office Action, dated December 10, 2009, finally rejecting claims 1 through 10 and 20 through 25 in the United States patent application identified above.

A Notice of Appeal in this application was transmitted to the United States Patent and Trademark Office via the electronic filing system on March 10, 2010, and was received in the USPTO on March 10, 2010.

Appellants request the opportunity for a personal appearance before the Board of Appeals to argue the issues of this appeal. The fee for the personal appearance will be timely paid upon receipt of the Examiner's Answer.

Fees

- ☒ Any required fee will be made at the time of submission via EFS-Web. In the event fees are not or cannot be paid at the time of EFS-Web submission, please charge any fees under 37 CFR § 1.17 which may be required to Deposit Account No. 13-3723.
- ☐ Please charge any fees under 37 CFR §§ 1.16 and 1.17 which may be required to Deposit Account No. 13-3723.
- ☒ Please charge any additional fees associated with the prosecution of this application to Deposit Account No. 13-3723. This authorization includes the fee for any necessary extension of time under 37 CFR § 1.136(a). To the extent any such extension should become necessary, it is hereby requested.
- ☒ Please credit any overpayment to the same deposit account.

REAL PARTY IN INTEREST

The real party in interest is 3M Company (formerly known as Minnesota Mining and Manufacturing Company) of St. Paul, Minnesota and its affiliate 3M Innovative Properties Company of St. Paul, Minnesota.

RELATED APPEALS AND INTERFERENCES

Appellants are unaware of any related appeals or interferences.

STATUS OF CLAIMS

Claims 1 through 25 are pending. Claim 26 was cancelled. Claims 11 through 19 are withdrawn. Claims 1 through 10 and 20 through 25 stand finally rejected.

STATUS OF AMENDMENTS

No amendments have been filed after the final rejection.

SUMMARY OF CLAIMED SUBJECT MATTER

The claims at issue relate to a capsule for storage, mixing and dispensing of materials. The capsule comprises a capsule body member providing a main chamber, and comprising a dispensing opening, an applicator being slideably accommodated in the capsule body member, the applicator member providing an auxiliary chamber, and an activator member being slideably accommodated in said applicator member. (p. 3, ll. 3–7). The main chamber and the auxiliary chamber are selectively connectable for fluid communication between the chambers upon activation of said capsule by the activator member. (p. 3, ll. 7–9). The applicator member comprises a through-hole, and the inner wall of the capsule body member comprises a recessed area. The through-hole and the recessed area form a channel between the main chamber and the auxiliary chamber upon activation of the capsule. (p. 3, ll. 11–14).

FIRST GROUND OF REJECTION

Claims 1 through 5, 20 through 22, 24 and 25 were rejected under 35 U.S.C. § 103(a) as being purportedly unpatentable over U.S. Patent No. 3,464,412 (Schwartz) in view of U.S. Patent No. 2,754,590 (Cohen).

SECOND GROUND OF REJECTION

Claims 6 through 10, and 23 were rejected under 35 U.S.C. § 103(a) as being purportedly unpatentable over Schwartz in view of Cohen, and further in view of U.S. Patent No. 5,172,807 (Dragon et al.).

ARGUMENT**First Ground of Rejection**

Claims 1 through 5, 20 through 22, 24 and 25 were finally rejected under 35 U.S.C. § 103(a) as being purportedly unpatentable over U.S. Patent No. 3,464,412 (Schwartz) in view of U.S. Patent No. 2,754,590 (Cohen). The Examiner indicated that Schwartz discloses the subject matter of claim 1 with the exception that Schwartz does not disclose that “movement of said activator member towards said dispensing opening causes movement of said applicator member so that said channel between said main chamber and said auxiliary chamber is formed.” The Examiner found that Cohen discloses such a feature and concluded that it would have been obvious to one having ordinary skill in the art to have combined the references, and that the resulting device rendered the claimed invention obvious. Appellants respectfully disagree for at least the following reasons and request that the rejection be reversed.

First, Schwartz does not disclose “*activation of said capsule by said activator member*” as required by claim 1. Contrary to the characterization of the Office Action, the piston 35 of Schwartz does activate the capsule and thus does not disclose or suggest the activator member of claim 1. The capsule of Schwartz is activated when the inner plunger 30 is pulled to the rear of the housing. Col. 4, ll. 73–75. The piston 35 is merely “drawn forwardly to replace the fluid as

the fluid is drawn into the housing by the negative pressure” (col. 5, ll. 20–24) and serves to prevent exposure of “the fluid in the plunger to atmospheric pressure or to possible contamination.” Col. 5, ll. 17–19. According to the present invention, however, application of a force by the user on the *activator member* causes the activator member and the applicator member to move into the capsule body. P. 3, ll. 24–25. As a result, the main chamber and the auxiliary chamber become connected with each other via the bypass 104 and the through hole 112. P. 11, ll. 29–32. The piston 35 does not activate the capsule of Schwartz and thus Schwartz does not disclose or suggest the “activation of said capsule by said activator member” as required by claim 1 of the present invention.

Second, Cohen does not cure the deficiencies of Schwartz. Although the Office Action indicates that the washer 26 of Cohen corresponds to the activator member of claim 1 causing movement of the applicator member to form a channel between the main chamber and the auxiliary chamber, no such activator member is suggested by Cohen. As indicated in the Figures and the written description in Cohen, the washer 26 is engaged after activation of the capsule “forming a solid head or piston, which allows the piston to eject the contents of the syringe into a cavity in a tooth.” Col. 3, ll. 1–3. The washer 26 does not cause movement of an applicator member “so that said channel between said main chamber 18 and said auxiliary chamber 17 is formed” as required by claim 1. It is only after the contents of cylinders 17 and 18 have been thoroughly mixed that the washer 26 is engaged to facilitate dispensing of the mixture. Col. 2, ll. 68–72. As a result, Cohen lacks any disclosure or suggestion of the requirements of claim 1 lacking from Schwartz, and thus does not render claim 1 unpatentable under 35 U.S.C. § 103(a) either alone or in combination with Schwartz.

Third, even if Schwartz were combined with Cohen in the manner suggested in the Office Action, a functional device having the elements of claim 1 would not result. It is not clear how the device of Schwartz, activated when rearward motion creates a pressure differential, can be combined with the device of Cohen, activated by a reciprocated plunger, to result in a device in which movement of an activator member towards the dispensing opening causes movement of an applicator member forming a channel between the main chamber and auxiliary chamber. The functionality of Schwartz is based on a pressure differential which draws the fluid into the forward interior of the housing. Cohen operates on an entirely different principle, and the

substitution of components from one into the other does not lead to a device that even functions, much less a device that renders obvious the subject matter of claim 1.

Ultimately, Schwartz does not disclose “*activation of said capsule by said activator member,*” Cohen does not cure the deficiencies of Schwartz, and, even if Cohen did disclose the elements of claim 1 lacking from Schwartz, the references can not be combined to create a functional device having the elements of claim 1. Claims 2 through 5, 20 through 22, 24 and 25 all depend either directly or indirectly from claim 1, and are therefore patentable for at least the same reasons. Therefore, Applicants respectfully request that the Examiner’s rejection of claims 1 through 5, 20 through 22, 24 and 25 be reversed.

Second Ground of Rejection

Claims 6 through 10, and 23 were rejected under 35 U.S.C. § 103(a) as being purportedly unpatentable over Schwartz and Cohen and further in view of U.S. Patent No. 5,172,807 (Dragan et al.). These claims all depend either directly or indirectly from claim 1, which is allowable over Schwartz and Cohen for the reasons described above, which are incorporated by reference in their entirety here. Dragan et al. does not cure the deficiencies in the disclosure of either or both of the primary references, and certainly does not explain or suggest how certain features of Cohen could be imported into and made to work with the device of Schwartz. Accordingly claims 6 through 10 and 23 are patentable under 35 U.S.C. 103(a) over any combination of Schwartz, Cohen and Dragan et al., and reconsideration of the rejection of those claims is respectfully requested.

With respect to claims 6 and 7 specifically, Dragan et al. does not appear to disclose or suggest a separation wall having a raised area extending towards said activator member. It seems that Figs. 4 and 8 of Dragan et al. suggest exactly the opposite - a raised area extending towards the dispensing end. Therefore, Dragan et al. does not render obvious claims 6 and 7, even if taken together with Schwartz and Cohen.

Similarly, Dragan et al. does not appear to disclose or suggest an applicator member comprising “a sealing element sealing said through-hole of said applicator member against said recessed area of said body member and against the exterior of said capsule” as required by claim

8. The sealing element 140 referred to by the Examiner is not comparable to the sealing element of claim 8. The through-hole of Dragan et al. is not located close to the sealing element 140 and the sealing element 140 does not seal the through-hole as required by claim 8. Therefore, Dragan et al., even taken together with Schwartz and Cohen, does not render obvious claim 8.

Dragan et al. does not cure the deficiencies in the disclosure of Schwartz or Cohen, and claims 6 through 10 and 23 are therefore patentable under 35 U.S.C. 103(a) over any combination of Schwartz, Cohen and Dragan et al. Reversal of the rejection of those claims is respectfully requested.

CONCLUSION

For the foregoing reasons, Appellants respectfully request that the Board reverse the Examiner on all counts.

Respectfully submitted,

March 12, 2010

Date

By: /Peter L. Olson/

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Document No. 815740
Office of Intellectual Property Counsel
3M Innovative Properties Company
Facsimile No.: 651-736-3833

Claims Appendix:

1. (Original) Capsule for storage and mixing and dispensing of dental material comprising:
a capsule body member providing a main chamber, and comprising a dispensing opening,
and wherein the inner wall of the capsule body member comprises a recessed area;
an applicator member being slideably accommodated in said capsule body member, said
applicator member providing an auxiliary chamber, and wherein said applicator
member comprises a through-hole extending from the auxiliary chamber to the
outer circumferential surface of the applicator member; and
an activator member being slideably accommodated in said applicator member;
said through-hole and said recessed area forming a channel between said main chamber
and said auxiliary chamber upon activation of said capsule by said activator
member;
said main chamber and said auxiliary chamber being selectively connectable for fluid
communication between said chambers upon activation of said capsule by said
activator member, wherein movement of said activator member towards said
dispensing opening causes movement of said applicator member so that said
channel between said main chamber and said auxiliary chamber is formed.
2. (Original) The capsule of claim 1, wherein said radially extending through-hole in said
applicator member is initially covered by the wall of said capsule body member.
3. (Previously presented) The capsule of claim 1, wherein said radially extending through-
hole is located in close proximity to the separation wall of said applicator member separating
said auxiliary chamber from said mixing chamber.
4. (Previously presented) The capsule of claim 1, wherein said through-hole extends
essentially perpendicularly to the longitudinal axis of said applicator member.
5. (Previously presented) The capsule of claim 1, wherein said through-hole extends
essentially at an angle smaller than 90° to the longitudinal axis of said applicator member.

6. (Previously presented) The capsule of claim 3, wherein said separation wall comprise a raised area extending towards said activator member.
7. (Original) The capsule of claim 6, wherein said raised area comprises an annular bulge.
8. (Previously presented) The capsule of claim 1, wherein said applicator member comprises a sealing element sealing said through-hole of said applicator member against said recessed area of said body member and against the exterior of said capsule.
9. (Previously presented) The capsule of claim 1, said activator member comprising an activator sealing element for sealing said activator member against said applicator member.
10. (Previously presented) The capsule of claim 7, wherein said sealing elements are manufactured by a two-component injection moulding process together with the capsule body member, the applicator member and said activator member.
11. (Withdrawn) Capsule for storage, mixing and dispensing of material comprising:
a capsule body member providing a main chamber, and comprising a dispensing opening;
an applicator member being slideably accommodated in said capsule body member, said applicator member providing an auxiliary chamber; and
an activator member being slideably accommodated in said applicator member;
said main chamber and said auxiliary chamber being selectively connectable for fluid communication between said chambers upon activation of said capsule by said activator member;
wherein said activator member comprises an internal channel system extending from the rear end of the activator member to an annular groove remote from the rear end of said activator member.

12. (Withdrawn) The capsule of claim 11, wherein said annular groove of said internal channel system is located adjacent to the front end of the activator member.
13. (Withdrawn) The capsule of claim 11, wherein said internal channel system accommodates a sealing material.
14. (Withdrawn) The capsule of claim 13, wherein the sealing material accommodated in the internal channel system of the activator member seals the gap between the applicator member and the activator member.
15. (Withdrawn) The capsule of claim 13, wherein the sealing material is a flowable hardenable material.
16. (Withdrawn) The capsule of claim 11, wherein the applicator member comprises a through-hole providing a channel between said auxiliary chamber in said applicator member and said main chamber.
17. (Withdrawn) The capsule of claim 16, wherein said through-hole is closed by a membrane.
18. (Withdrawn) The capsule of claim 11, said activator member comprising a convex or tapering or conical or truncated front end surface.
19. (Withdrawn) The capsule of claim 11, said activator member comprising a concave or funnel-shaped or reverse-truncated front end surface and a vent channel extending from said front end surface to the exterior or environment or surroundings, preferably via said internal channel system.
20. (Previously presented) The capsule of claim 1 or 11, further comprising a dispensing cannula connected to said dispensing opening.

21. (Original) The capsule of claim 20, wherein the dispensing cannula is integrally formed with said capsule body member.
22. (Original) The capsule of claim 20, wherein said cannula is rotatably connected to said capsule body member thus providing a valve.
23. (Previously presented) The capsule of claim 1 or 11, wherein said dental materials are glass ionomer cements or resin modified glass ionomer cements.
24. (Previously presented) The capsule of claim 1 or 11, wherein said main chamber contains a first, preferably powdery, component of said material, and said auxiliary chamber contains a second, preferably liquid, component of said material.
25. (Previously presented) Kit, comprising at least one of the capsules of claim 1 or 11.
26. (Canceled)

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.